

Appl No. 09/652,511
Reply to Office action of 09/28/04
Amendment/Response date: June 15, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-26 (Cancelled).

27. (Currently Amended): A system for providing priority based access to a shared resource, comprising:

a central arbiter coupled to the shared resource, the central arbiter having a first input and a second input;

a first device having a request line for requesting access to the shared resource coupled to the first input of the central arbiter;

a second device having a request line for requesting access to the shared resource; and

a priority based arbiter coupled between that intercepts access requests from the request line from the second device and the second input of the central arbiter;

~~wherein the priority based arbiter receives a signal from the first device indicative of a priority status of the first device forwards access requests from the second device to the second input of the central arbiter; and~~

wherein the priority based arbiter is responsive to a signal from the first device indicative of a priority for the first device to delay requesting access generate a modified request signal responsive to signals from for the second device that is sent to the second input of the central arbiter after a delay of for a predetermined amount of time based on the signal from the first device.

28. (Previously Presented) The system of claim 27, the priority based arbiter further comprising a counter.

29. (Previously Presented) The system of claim 28, wherein a value is input into the counter based on the signal indicative of the priority status of the first device; and the predetermined amount of time is based on the value in the counter.

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30. (Previously Presented) The system of claim 29, wherein the priority based arbitrator is configured to change the value in the counter based on a change of the signal from the first device indicative of the priority status of the first device.

31. (Currently Amended) The system of claim 30, the priority based arbiter further comprises[[:]] a programmable configuration logic for configuring the counter to generate the predetermined delay associated with respective context data.

32. (Previously Presented) The system of claim 27, wherein said shared resource is a bus.

33. (Previously Presented) The system of claim 27, wherein the priority based arbitrator provides no delay in generation of the modified request signal responsive to a signal from the first device indicative of an idle state.

34. (Currently Amended) A system for providing priority based access to a shared resource, comprising:
a first device;
a second device;
means for alternatively granting access to the shared resource between the first device and the second device when both devices request access to the shared resource; and
means for ~~delaying~~intercepting a[[the]] request for access from the second device coupled between the second device and the means for alternatively granting access;
wherein the means for ~~delaying~~intercepting the request for access from the second device is responsive to a signal from the first device indicative of a priority status of the first device to delay the request from the second device to the means for alternatively granting access to the shared resource a predetermined amount of time based on the signal indicative of the priority status of the first device.

35. (Currently Amended) The system of claim 34, the means for ~~delaying~~intercepting further comprising means for counting.

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36. (Currently Amended) The system of claim 35, wherein a value is input into the means for counting based on the signal indicative of the priority status of the first device; and

the predetermined amount of time is based on the value in the ~~counter~~means for counting.

37. (Currently Amended) The system of claim 36, wherein the means for ~~delaying-intercepting~~ is configured to change the value in the means for counting based on a change of the signal from the first device indicative of the priority status of the first device.

38. (Previously Presented) The system of claim 34, wherein said shared resource is a bus.

39. (Currently Amended) The system of claim ~~[[27]]~~34, wherein the means for ~~delaying-intercepting~~ provides no delay responsive to the signal from the first device ~~indicative-indicating~~ of an idle state.

40. (Currently Amended) A method for selectively granting access to a shared resource between a first device and a second device, comprising:

receiving a signal from the first device requesting access to the shared resource, the signal from the first device having an associated priority level

intercepting a signal from a second device requesting access to the shared resource; and

delaying ~~[[a]]~~the intercepted signal from the second device requesting access to the shared resource a predetermined amount of time based on the associated priority level of the first device.

41. (Previously Presented) The method of claim 40, the delaying a signal further comprising:

initializing a counter with a predetermined initial value based on the associated priority level of the first device; and

decrementing the counter until the counter reaches a predetermined threshold value;

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wherein the delaying continues until the counter reaches the predetermined threshold value.

42. (Previously Presented) The method of claim 41, wherein the delaying further comprises:
re-initializing the counter responsive to a change of the associated priority level of the signal from the first device indicative.

43. (Previously Presented) The method of claim 40, wherein the delaying provides no delay responsive to a signal from the first device indicative of an idle state.

44. (Previously Presented) The method of claim 40, wherein the associated priority level is one of the group consisting of high priority, low priority, and idle.

45. (New) The system of claim 27, wherein the priority based arbiter is responsive to the signal from the first device to control the frequency of access requests from the second device forwarded to the second input of the central arbiter based on the signal from the first device indicative of the priority for the first device.